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# A Soviet push for US technology

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WASHINGTON - A Soviet effort to acquire US military technology, legally and illegally over the past several years, has been so massive that Western nations have, in effect, been "subsidizing the Soviet military buildup," according to a Pentagon report released yesterday.

The effort has involved a highly centralized intelligence network designed to obtain militarily useful documents and hardware from US defense contractors and universities, including several in New England. Among them are General Electric, Pratt & Whitney, Raytheon, Honeywell, Sanders Associates, Teledyne, Avco, GTE, Mitre Corp., Digital Equipment, and MIT, Harvard, Brandeis, Yale and Rensselaer.

General Electric is the most heavily "targeted" US corporation, MIT the most heavily targeted university.

The report says "virtually every Soviet military research project" - over 4,000 each year in the late 1970s, over 5,000 in the early 1980s - has benefited.

The Soviets' effort is organized by a high-level directorate called the Military Industrial Commission, known by its Russian initials, the VPK, which the report calls "the most powerful organization in the [Soviet] defense-research establishment."

Through the VPK, the report says, the Soviet defense industries identify Western technologies they need - documents, blueprints, product samples, hardware. The task of obtaining them is assigned, with a budget, to the KGB or the GRU, the leading Soviet intelligence agencies, or to the Ministry of Trade or Soviet Academy of Sciences.

Western technology has particularly aided the Soviet Union in electronics, armor, aviation and missiles. Richard Perle, an assistant secretary of defense who has

long favored tighter restrictions on technology exports, said yesterday, "There would be no significant Soviet microelectronic capability today without acquisition of US technology."

Microelectronics are vital to the development of accurate guidance systems for missiles, speedy data-transmission networks, and everything else involving codes or computers.

## "Samples and documents"

An example of a VPK request, cited by the report, is a "priority code A-1" requirement - filed by the Soviet ministries of aviation, communications equipment and electronics industries - for "samples and documents" on "electronic components and programming devices for cruise missile digital computer memory." The VPK allotted 170,000 rubles (about \$475,000) to the mission, and assigned it to the KGB.

The report says the VPK issues "some 3,000 to 5,000 new, amended and reapproved requirements" of this sort each year. Roughly one-third of the requests are fulfilled. Of those, 5 to 10 percent have been judged by the Soviets as "most significant to military research projects."

The report says these figures come from the Soviet Union's own estimates. The level of detail in the report suggests that US intelligence agencies have gained access to VPK documents.

Perle said the report is a product of the Technology Transfer Intelligence Committee, a panel of officials from 22 US agencies, chaired by the CIA, established to analyze how the Soviets acquire Western technology.

According to the report, only about 10 percent of the roughly 100,000 documents obtained worldwide by the VPK each year are classified. Another 10 or 20

percent, while officially unclassified, are publicly inaccessible because of government-export or proprietary-corporate controls. Much of these materials are obtained outside the United States, through circuitous trading routes or "unscrupulous" brokers, often by Eastern European spies.

## Data publicly available

The other 70 to 80 percent of the documents are publicly available, including files in the government's National Technical Information Service, the US Patents Office, the National Aeronautics and Space Administration, and scientific conferences, which the report says the VPK "targets" explicitly.

Perle has advocated imposing tight restrictions on potentially sensitive scientific research conducted at universities and private organizations.

The report says the VPK has used the Soviet Academy of Sciences to obtain information from top US universities. For example, the VPK has listed MIT as a center of research on high-strength alloys, hypersonic aerodynamics and high-energy laser weapons. The report says MIT and Harvard have been cited as sources of "techniques, methodologies, and results for evaluation of strategic concepts on space, aviation and missile systems."

Soviet scientists made 374 visits to MIT and 123 to Harvard in the early 1980s, although the report notes, "There is, however, little data indicating that specific scientists were tasked to acquire information for Soviet military research projects." Nor does the report say whether the Soviets obtained anything useful from these visits.